ANNUAL REPORT 2002-03
Promoting healthy eyes and a healthy vision.
Celebrating of 50 Years of Excellence in Optometric Education, Research and Service -- 1953-2003

The 2003-2004 academic year will be exciting for the School of Optometry. It was 50 years ago this fall that the first students entered the optometry program at IU. A number of events will be held to recognize the achievements of those 50 years. On October 1, 2003 there will be a celebration held in the Indiana Memorial Union Alumni Hall to thank those past and present who have developed the School, and also to honor our alumni and friends. There will be food, music, a short program, a chance to meet with friends and to reminisce. This reception is being supported by Interstate Optical. All of the speakers at the IOA Fall Seminar being held at this time will be IU optometry alumni or faculty members.

A committee of faculty and alumni are developing a "Wall of Recognition" to be displayed in the School. Individuals who have made significant contributions to the school and/or profession will be honored with their photos and notation of their contribution placed on the wall. The committee has decided that the first individuals to be honored will be those involved in the establishment of the School. In future years, additional individuals with special contributions to the School or the profession will be added. In addition, plaques recognizing all the M.S. and Ph.D. graduates of the physiological optics program, now called the vision science program, will be displayed in the School. Dr. David Goss is writing a history of the School and to be published in the Indiana Journal of Optometry, Volume 6, Number 2. I will be visiting most of the societies of the IOA this year to update them on the activities of the School. Ciba Vision is sponsoring the meals at these meetings.

Members of an IU graduate Fine Arts class designed posters commemorating our anniversary. There were many excellent designs; the winning design was by Nadia Bianchi and another design by Ambica Prakash is the cover of this annual report.

With the continued growth at the Community Eye Care Center, our clinic located on the west side of Bloomington, a two story addition was built, which gives five additional exam rooms, a special testing room, a conference room, offices, staff lounge and storage space. The addition also freed up existing space for enhanced patient care. This clinic is a tremendous resource for the community providing primary eye care, low vision, pediatric vision, sports vision and ocular disease services as well as a great educational opportunity for our students.

We are finalizing the plans for a new clinic in the IU Medical Group clinic in Carmel. This clinic is in a multidisciplinary medical facility which we will share with numerous IU Medical School specialty services. We will be sharing a waiting area and eyewear center with the IU Department of Ophthalmology practice plan. Our clinic will consist of the eyewear center, four exam rooms, a faculty office and a business office. We will provide a wide range of vision services including primary care, contact lens service, and ocular disease care. There will also be cooperative clinical research projects with ophthalmology.

Our faculty and students continue to provide an enormous amount of service to school systems, special needs patients and indigent patients, many who would otherwise not receive vision care. We screen over 4,000 first graders each year. Headstart and First Steps children are examined. Screenings are performed on junior high, high school and college athletes. We provide care to needy patients in rural southern Indiana health clinics. In Indianapolis we provide care at the Southwest Health Clinic, Martindale-Brightwood Clinic, Indiana Youth Center, the Boy's School and Girl's School. We care for patients in the Larue Carter Psychiatric Hospital, Christina House assisted living facility, diabetic patients in Wishard Hospital and care to many of the homeless in Indianapolis. Many health fair screenings and other services are also provided.

As with all health care providers, we had to meet the new HIPAA privacy requirements. We modified the reception areas in all three of our Indiana clinics, developed patient materials, and educated and certified almost 400 faculty, staff and students to achieve this.

The research productive continues to grow at the school. There are numerous exciting funded studies underway. There are several investigations on the physiology of the cornea including basic studies on fluid transport, endothelial function, epithelial cell shedding, and cell volume change as well as clinical studies on the effect of orthokeratology, refractive surgery, dry eye and oxygen deprivation on corneal healing. Glaucoma related studies are being performed on the effect of trabecular meshwork cell volume changes on aqueous outflow and the effect of pharmacological agents on these cells. There are electrophysiological (Multifocal ERG) studies on the early detection of glaucomatous changes. Basic and clinical studies on age-related macular degeneration are underway. Our infant vision research continues to grow. The group of faculty doing adaptive optics has an international reputation for their advances in the ability to measure and correct the aberrations of the human eye. They have been able to obtain photos of individual retinal cells in the human eye. This has tremendous potential for early detection of ocular disease and for quantifying the effectiveness of therapeutic treatments. There are numerous clinical studies being carried out in the Borish Center including myopia control, keratoconus, dry eye, progressive addition spectacle designs, orthokeratology, amblyopia, and contact lenses. I think you will enjoy reading the summaries of some of the faculty's research later in this report.

As a result of this research, our faculty are invited to present their work at national and international meetings. We had faculty this year present in Japan, China, South Africa, Italy, Spain, UK, and Thailand. IU Optometry has a great international reputation.

The research contribution of the School of Optometry promises to grow.
in the coming years, as we will be hiring at least five additional faculty over the next two years. The positions will be a combination of replacements to fill open positions, and new positions provided by campus funds under the Commitment to Excellence program. The areas of research of the potential faculty under consideration are on very important clinical problems, which will enhance our reputation as one of the top vision and vision science programs in the world.

The alumni will remember those hard seats in the classroom 105 and the present students are experiencing them now. The GOOD NEWS is the classroom is scheduled to be remodeled next summer, which is not too soon!

As always, I invite you to visit the School of Optometry any time you have a chance. You will be impressed with our outstanding faculty, staff and students.

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Cover: Design by Ambica Prakash
In the fall of 1953, the first optometry class of eighteen men started at Indiana University; twelve were Indiana residents and six were non-residents. At the end of the first year sixteen remained, and those sixteen went on to graduate three years later in 1956. The program was the Division of Optometry within the College of Arts and Sciences and the graduates received the M.Opt. degree from the Graduate School. Students were required to have two years of undergraduate education before adding the three years of optometry curriculum.

At the time, the undergraduate fees for the pre-optometry program were $3.25 per semester hour or an average of $48.75 a semester. By comparison, today the undergraduate resident fee per semester is $2898. The professional program fees were then $150 per semester for Indiana residents and $280 for non-residents. For the 2003-04 academic year, the optometry school fee for Indiana residents is $11,749 per year and for non-residents is $26,361.

In the fall of 1953 there were three faculty members, Director Dr. Henry Hofstetter, plus Dr. Merrill Allen and Dr. J. Stanley Rafalko. Dr. Hofstetter was an optometrist and PhD from The Ohio State University and had previously been Dean of the Los Angeles College of Optometry (now Southern California College of Optometry). Dr. Allen was an optometrist and PhD from Ohio State and Dr. Rafalko was a PhD in anatomy. By the time this class graduated, three more faculty members had been added: Dr. Gordon Heath, Dr. Neal Bailey, and Dr. Ingeborg Schmidt. Today the program has over thirty full-time, eight part-time, and seventy adjunct faculty members.

In 1951 to 1953, the required courses in the two-year
The following courses comprised the curriculum of the three year professional program for the first entering class in 1953:

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
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<tr>
<td>Physics</td>
<td>Optics</td>
<td>Optometry (clinic)</td>
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<td>Optometry</td>
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<td>Anatomy</td>
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<td>Literature and Arts</td>
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The pre-optometry program consisted of English, chemistry, mathematics, social science, zoology, physics, military science and physical education. Today, approximately 90% of the entering students have a bachelor’s degree with a few exceptional students being admitted after three years of undergraduate education. Those students must have a minimum 90 credit hours to enter, with 62 hours of required courses.

Today the professional program is four years long with 166 total credit hours. In addition to the clinical experience in the third year, the entire fourth year is divided into four rotations, many of which are in referral centers, eye hospitals, military bases, VA hospitals and other locations around the country—quite a difference from the 1953 program requirements.

The make-up of students entering the program has changed dramatically since 1953. Today the entering classes average 75 students. Over half of these students are female, again quite a change over the years (see graph). The class entering in the fall of 2003 has 29 men and 50 women, 34 Indiana residents, and 45 non-residents from 17 states and one foreign country. The mean undergraduate GPA is 3.46 and 85% of the class had a bachelor’s degree.
The teaching clinics are the core of the optometric educational program. The clinics not only give students practical experience in providing patient care under the direction of faculty, but the clinics are also a source of the most up-to-date vision and related health care for the citizens of Indiana. The students’ first experience examining patients is during their third professional year (7th year of university education). During this year they perform primary care vision examinations at the two Bloomington clinics.

During the fourth year of their optometric education, students see patients at four different sites around the country. One rotation for all students is in the Bloomington clinics seeing specialty patients. Most students rotate through the Indianapolis Eye Care Center; the remaining two rotations are chosen from a long list of possible sites, including Veteran Administration hospitals, military clinics and military hospitals, eye hospitals, eye referral centers, and the IU clinic in Mexico to name a few. In our external rotation clinic sites, adjunct faculty oversee the students (see the list of adjunct faculty), to whom we are indebted for their outstanding service to our students. The clinical experience the IU students receive as a result of rotating through different practice settings is the best in all of vision care education.

The School of Optometry has two clinics in Bloomington, one in the optometry building on Atwater Avenue, and a second one located on the west side of Bloomington at 803 North Monroe. Both clinics welcome and serve patients from the community and from around the state.

The Atwater Eye Care Center (AECC) is a modern teaching clinic that cares for patients in its primary care, binocular vision/pediatric, contact lens and electrodiagnostic clinics. There is also an outstanding eyewear center with the largest selection of eyewear in the area. The clinic was recently remodeled to provide a very pleasant, comfortable facility for our patients in addition to already being equipped with the latest technology. Patients ranging from infants to the elderly are cared for in the clinic using specialized diagnostic procedures. Additional parking has been added at the Atwater clinic to alleviate the previous difficulty patient’s encountered when visiting AECC.

Contained within the Atwater Eye Care Center is the Borish Center for Ophthalmic Research (BCOR) where clinical based vision care research is conducted. The specialized facilities and equipment of the BCOR are also used for patient care when the need arises.

Over the past year, the Community Eye Care Center (CECC) was expanded to accommodate the increasing number of patients seeking eye care. As CECC is now
easy to physically access and is equipped with the latest diagnostic and treatment technology. This enhanced teaching clinic is ideal for people needing all types of eye care services. Optometrists with advanced training in the specialty areas of primary care, ocular disease, low vision, binocular vision/pediatrics, and sports vision provide patient care services in the facility. In addition, an ophthalmologist from the IU Medical Center specializing in retinal care also sees patients twice a month.

Students from the School of Optometry also work with a faculty member in the vision clinic in the IU Student Health Center on the Bloomington campus. They examine IU students and family members who have emergency eye problems. This teaching clinic gives the students experience dealing with injuries and acute ocular disease.

The Indianapolis Eye Care Center (IECC) is a School of Optometry teaching clinic at 500 Indiana Avenue, on the canal north of downtown Indianapolis. This clinic consists of 17 examination rooms, special testing areas, an eyewear center, a learning center and other auxiliary facilities. The clinic provides full service eye care with specialty clinic services in low vision and binocular vision / pediatrics. The clinic serves residents of the inner city, the IUPUI campus and downtown workers. IECC has numerous out-reach programs in the Indianapolis community, including seeing patients once a week at LaRue Carter Psychiatric Hospital and providing vision care for the Disabled American Veterans.

A new clinic is being developed in Carmel, Indiana, in conjunction with the Indiana University Department of Ophthalmology. The two departments will collaborate to provide the latest in vision care and will also share the building with a number of the other IU School of Medicine specialties and a surgical center. The facility is located in the new IU Medical Group Clinic building north of I-465 just off Meridian Street. The optometry clinic should be in operation by January 2004, and will consist of four examination rooms, and an eyewear center and will share reception areas with Ophthalmology.

A unique teaching clinic for the IU School of Optometry is the Guanajuato Eye Care Center (GECC) in Guanajuato, Mexico. The clinic operates in conjunction with the Department of Infants and Family (DIF) of the State of Guanajuato. A full-time IU faculty member plus 3 to 5 students who chose this site for a fourth-year rotation provide care for indigent patients from around the State of Guanajuato, many of whom have never had vision care. As a result of being treated in the clinic, some are able to obtain clear vision for the first time in their life. The optometry students see more advanced and different ocular and systemic disease than is normally seen in the United States. In addition to an outstanding clinical experience, the students have a great cultural experience and quickly learn to perform an examination in Spanish, which could be an important skill with the growing Spanish-speaking population in Indiana and around the country.
Adjunct Faculty

Dr. Paul Ajamian  
Omni Eye Services of Atlanta, Atlanta, GA

Dr. Larry Alexander  
John Kenyon Eye Center, Jeffersonville, IN

Dr. Sharon Atkin  
Perry Point VAMC, Perry Point, MD

Dr. Samuel Baron  
Golden Vision Clinic, Golden, CO

Dr. Christopher Bergman  
Omaha Eye Institute, Omaha, NE

Dr. Mary Bigelow  
Wright-Patterson AFB, OH

Talmadge Bosin, Ph.D.  
Indiana University Medical Sciences Program

Dr. Stephen Boyer  
Illiana Healthcare System (VAMC), Danville, IL

Marcia Jo Campbell, M.D.  
Bloomington Hospital, Bloomington, IN

Dr. Randy Carter  
The Eye Institute of Utah, Salt Lake City, UT

Dr. James Chapman  
Lackland AFB, TX

Dr. Catherine Chiarelli  
Vision Institute of Canada, North York, Ontario

Dr. Matthew Cordes  
Huntington VAMC, Huntington, VA

Dr. Ronald Danis  
IU School of Medicine Department of Ophthalmology

Dr. Michael Dankovich  
Eye Assoc. of Southern Indiana, Jeffersonville, IN

Dr. Brian DenBeste  
Laservue, Orlando, FL

Dr. John Eastlake  
USA MEDDAC, Fort Knox, KY

Dr. Walter Egenmaier  
EyeCare Consultants, Evansville, IN

Dr. Frank Emerick, Jr.  
Wabash Valley Eye Center, Vincennes, IN

Dr. Howell Findley  
Commonwealth Eye Services, Lexington, KY

Dr. Dax Gay  
Illiana Healthcare System (VAMC), Danville, IL

Michael W. Gettlefinger  
Family Health Center of Clark County, Jeffersonville, IN

Dr. Michael Goen  
VAMC, Pensacola, FL

Dr. Bobby Greenlee  
VA Medical Center, Lexington, KY

Dr. Joseph Halabis  
Canton VAMC, Canton, OH

Dr. Carolyn Hall  
Eye Associates of Southern IN, New Albany, IN

Dr. Eric Harmon  
Patoka Family Health Care Center, English, IN

Dr. James Harmon  
Patoka Family Health Care Center, English, IN

Dr. Geoffrey Heddle  
Family Eye Care, Ridgefield, CT

Dr. Liana Ho  
Ireland Army Hospital, Ft. Knox, KY

Dr. Steven Holbrook  
The Eye Center of Southern IN, Bloomington, IN

Dr. Chad Huck  
The Eye Center of Southern IN, Bloomington, IN

Dr. Sarah Huseman  
The Eye Surgeons of IN, Indianapolis, IN

Dr. Robert Johnston  
The Eye Specialists of IN, Indianapolis, IN

Curt Jordan, MD  
The Eye Associates of Southern IN, Jeffersonville, IN

Dr. Charles Kinnaird  
West Side VAMC, Chicago, IL

Dr. Greg Kiracofe  
VAMC, Dayton, OH

Dr. Glenn Kirk  
The Eye Specialists of IN, Indianapolis, IN

Dr. Kirk MacKay  
The Eye Specialists of IN, Indianapolis, IN

Dr. Masoud Mahmoodi  
IU School of Optometry

Dr. Richard Mangan  
Marion Eye Center, Marion, IN

Dr. Kirk Maynard  
Offutt AFB, NE

Dr. George Meers  
Bascom Palmer Eye Institute, Miami, FL

Dr. Laurel Meier  
Quantico Naval Medical Clinic, Quantico, VA

Dr. Randall Noblitt  
John Kenyon Eye Center, Louisville, KY

Dr. Ronald Nolan  
New Albany, IN

Dr. Patrick O’Neill  
Northfield Eye Center, Northfield, MN

Dr. Gregg Ossip  
Ossip Optometry and Ophthalmology, Indianapolis, IN

Dr. Bradley Peltzer  
Aran Eye Associates, North Miami, FL

Dr. Lee Peplinski  
Bennett-Bloom Eye Center, Louisville, KY

Dr. Steve Petkovich  
Roudebush VAMC, Indianapolis, IN

Dr. Jeffrey Pietrzyk  
Bennett & Bloom Eye Centers, Louisville, KY

Dr. James Rakes  
VAMC, Lexington, KY

Dr. Judy Risch  
Richmond Eye Institute, Richmond, IN
Looking Back

A few of the faces of the early School of Optometry clinic on the Bloomington campus (clockwise from left bottom): The Division of Optometry in Wylie Hall, the waiting area in the now demolished Foley House at 744 East Third Street; the Foley House entry; and the old Health Center basement - also demolished, which stood behind the current IU Chemistry building, and construction on the 800 East Atwater building.
There is a very active basic vision science and clinical research program in the School of Optometry. The faculty has markedly increased the amount of research and research funding over the past few years. The following is a summary of some of this exciting research that is having an impact on vision care of the public.

Dr. Sarita Soni has been participating for the past three years in an international clinical trial, funded by Valley Forge Pharmaceuticals, to determine the effect of Pirenzepine, an M1 Muscarinic antagonist, on progression of myopia in children. Phase III of the clinical trial will be conducted in 2004 funded by Novartis Ophthalmics, as Pirenzepine was recently licensed by Novartis Ophthalmics for further development.

Having previously determined the efficacy of overnight orthokeratology, Dr. Soni's current investigations are focused on the optical and physiological changes in the cornea. A couple of questions are being asked: do the optical changes occur only at the anterior corneal surface or do the changes involve the deeper layers of the cornea especially under long term use of orthokeratology lenses? Concurrently the long term safety of overnight wear of orthokeratology lenses is being studied by assessing the acute and long term changes in corneal metabolism. The school is also a participating center for Polymer Technology's XO overnight orthokeratology trial for Contex, Dreim and BE lenses. Two of the overnight orthokeratology investigations are funded by Polymer Technology.

Research on presbyopic correction with progressive addition lenses is an area of Dr. Soni's research funded by Essilor. It is focused on quality of life and quality of vision analysis with various progressive addition lenses that are currently on the market and/or in development. This is an on-going program, as three large scale investigations in this area have been completed in the past five years.

Later this year, another clinical trial, funded by NIH, will evaluate the efficacy of a unique and novel presbyopic soft contact lens design.

With the help of her research associate Dr. Tracy Nguyen and an incoming graduate student, Dr. Soni intends to focus research in the areas of refractive error and corneal metabolism. The refractive error investigations include progression of myopia in children, correction of myopia with overnight orthokeratology and presbyopic correction with progressive addition spectacle lenses and soft contact lenses.

Dr. Rowan Candy conducts studies of visual development, with a view to understanding how the visual system develops in babies and how well they can see. Postnatal development of the visual system is dependent on the quality of vision an infant experiences after birth. The current goal is to understand how well infants focus on objects and therefore the amount of blur that the normal infant eye experiences in its habitual world. Projects funded by the National Institutes of Health incorporate approaches from the fields of neuroscience, psychology and clinical study.

Dr. Don Lyon is a member of the Pediatric Eye Disease Investigator Group (PEDIG). PEDIG consists of optometrists and ophthalmologists nation wide who perform multi-centered clinical research on pediatric eye diseases, including amblyopia. Dr. Lyon is currently a local principal investigator on five amblyopia treatment studies (ATS) which are funded by the National Eye Institute. These studies assist optometrists in understanding how to manage patients with amblyopia, one of the most common vision problems in young children, using different treatment modalities including patching, atropine and near activities. Considerable clinical information came out of two previous studies, greatly altering how optometrists are treating amblyopia. It is expected that the current projects will continue to give insight into this common, treatable
condition.

The research of Dr. Suresh Viswanathan concentrates on the areas of early detection of visual function changes in glaucoma and understanding normal age-related changes in the visual function of the elderly. Dr. Viswanathan's research in the area of glaucoma currently focuses on developing non-invasive and electrodagnostic tests of retinal ganglion cell and optic nerve function that will be more sensitive than standard automated perimetry for detecting very early changes in retinal function. Retinal ganglion cell dysfunction and death underlie the progressive visual damage occurring in glaucoma. Clinical tests that are sensitive to early disruptions of retinal ganglion cell function in glaucoma are necessary so that therapeutic intervention can be adopted earlier in the disease to prevent permanent vision loss. Dr. Viswanathan's work in the area of aging research concentrates on determining the retinal loci of changes in dark-adapted (or rod-mediated) visual function in the elderly. Normal age-related visual changes in the elderly population interfere with their abilities to perform routine tasks and disease conditions like age-related macular degeneration can compound this difficulty.

Identifying and characterizing the sites and mechanisms of normal age-related changes in visual function will be useful for developing appropriate preventative strategies for preserving good vision in the aging population and will help to differentiate normal age-related changes from those resulting from early pathological damage in disease conditions like Age-Related Macular Degeneration. Dr. Viswanathan's work is currently supported by funds from the American Federation of Aging Research, the Indiana Chapter of the American Academy of Optometry and Indiana University Research and University Graduate School.

Currently, the focus of Dr. S. P. Srinivas is on the molecular mechanisms underlying the principal functions of the corneal endothelium and trabecular meshwork. The corneal endothelium is a monolayer of cells at the posterior surface of the cornea. This monolayer keeps the cornea transparent by constantly pumping fluid out of the stroma and at the same time limiting fluid entering the stroma from the anterior chamber (called the barrier function). Experiments are focused on determining the molecular mechanisms involved in the regulation of both fluid pumping activity and those involved in the maintenance of the barrier integrity. Investigation centers on cell volume regulation, barrier integrity, ion transport mechanisms, cell surface receptors, and cell signaling.

Glaucoma is another area of Dr. Srinivas' research. The trabecular meshwork is a porous tissue possessing the capability to regulate outflow of the fluid that is constantly secreted into the anterior chamber of the eye. Therefore, blocking of the meshwork results in an elevated pressure in the anterior chamber. This elevation in the intraocular pressure (IOP), results in excavation of the optic nerve which is involved in neurotransmission of the visual impulses to the brain. Experiments are focused on investigation of factors that alter resistance to fluid outflow at the trabecular meshwork. Dr. Srinivas' research is supported by grants from the NEI.

The research of Dr. Carolyn Begley includes the cornea, conjunctiva, tear film and contact lenses, toxicology and microbiology of ophthalmic solutions, contact lens deposits, keratoconus, and ocular allergy and immunology. Recently Dr. Begley focused on dry eye, which is a common condition affecting millions. Unfortunately, the cause of the condition is poorly understood, and the standard clinical tests fail to consistently diagnose the condition. Dr. Begley has collaborated with other investigators in developing new questionnaires that identify and quantify the symptoms of dry eye. She also led a team of investigators in developing a questionnaire that determines how the dry eye condition affects patients' quality of life. She is using the dry eye questionnaires to identify new clinical tests for dry eye that are associated with symptoms. One of these new methods quantifies the uniformity of the tear film as it spreads over the surface of the eye. This may provide a time-sensitive measure for areas of cellular stress underlying dry spots in the tear film. She is also involved in testing the visual effects of a non-uniform tear film, and has begun a study of vision and dry eye symptoms in patients who are undergoing refractive surgery. She has funding from several ophthalmic companies, and is currently leading a group of investigators in applying for a federal grant on dry eye.

Dr. Joseph A. Bonanno has a busy laboratory which studies the physiology of the cornea. One of his areas of...
research is ion transport of the corneal endothelium. The goal of this research is to understand the mechanisms by which the corneal endothelial cells secrete fluid and how it is regulated. The corneal endothelium is responsible for maintaining the hydration of the cornea. This function is essential for good vision since a defective endothelium will lead to a reduction in corneal transparency. Identifying and characterizing ion transport mechanisms that are responsible for fluid secretion is one current task using combined physiological, molecular biological and biophysical approaches. Currently, the lab is focusing on signal transduction pathways that could stimulate ion transport. Devising rational medical treatments for endothelial dysfunction is needed to treat traumatized or diseased corneas (e.g., early Fuchs’ Dystrophy). This research is supported by a grant from the National Institute of Health.

Another area of Dr. Bonanno’s research is corneal metabolic activity in humans. When the cornea is made hypoxic, for example by wearing a contact lens, glycolytic metabolism is stimulated and as a consequence lactate and proton production increases. In addition to a decrease in corneal pH from the proton production, the excess lactate in the cornea will act as an osmotic stimulus, drawing water into the stroma, causing corneal swelling. Interestingly, in a group of normal human subjects, given the same hypoxic stimulus, there is a wide range of corneal swelling responses. The hypothesis is that this intersubject variability is due to variability in corneal metabolic activity and corneal oxygen consumption and hypoxic acidosis data confirm this notion. Contact lens wearers show less hypoxic swelling than non-wearers. This may be due to an adaptation to hypoxia, which can change gene expression. One consequence of this adaptation is that corneal cells appear to be more resistant to stress. Whether hypoxia-adaptation could be used to protect corneal keratocytes during LASIK or other photoablative surgeries is something being investigated. This work is supported by the National Institute of Health.

Dr. David Goss centers research in two areas. One is the clinical analysis of accommodation and convergence; and evaluation of clinical accommodation and convergence tests. Accommodation is the process of focusing the eye for changes in viewing distance. Convergence is inward rotation of the eyes for near viewing. Disorders of accommodation and convergence can be detrimental to educational, occupational, and/or recreational performance. Recent studies include comparison and repeatability of methods of testing dissociated phorias (a measure of eye convergence position) and fusional vergence ranges (a measure of convergence capability); factors affecting accommodative facility (a measure of speed of accommodative changes) test performance; comparison of dynamic retinoscopy (a clinical method of measuring accommodation) techniques; and effect of test target configuration on dynamic retinoscopy test results. Other studies include relation of accommodation and convergence test results to computer vision symptoms (funded by the AOA Environmental Occupational Vision Committee); comparison of fixation disparity (a measure of stress on convergence) variables as measured by two commercially available test cards; comparison of clinical accommodation test procedures; and effect of plus lens additions on accommodative response.

A second area of Dr. Goss’ interest is the history of optometry. Recent contributions include the history of Gullstrand’s study of keratoscopy and a survey on the most important optometry books of the 20th century. A study in progress is the history of the IU School of Optometry, as 2003 is the 50th anniversary of its founding.

Dr. Gary Hafner investigates invertebrate’s visual system development and its relation to evolution of the visual system. Organ specification, patterning and cell recruitment are fundamental processes in development. One goal is to understand the extent to which these processes are conserved in arthropod visual system development. The other research activity involves collaboration with Dr. Viswanathan in the School of Optometry on a morphometric study of aging changes in the rat photoreceptor and their correlation with changes in the electroretinagram.

Dr. Don Miller’s research laboratory develops and applies advanced optical technologies to address fundamental questions about the human eye and to improve the diagnosis and treatment of eye problems. He currently has two active projects. The first is spearheaded by graduate student Fan Zhou, who has developed a novel spatially-resolved refractometer for measuring refractive anomalies, with high precision, originating at the corneal surface.
Recent success with the instrument suggests it should be clinically relevant for evaluating the optical outcome of refractive surgery, and early diagnosis and monitoring of keratoconus and other corneal pathologies. The second project focuses on the development and utilization of a high-resolution retina camera for imaging single cells in the living human retina. The camera combines technologies in adaptive optics and optical coherence tomography to produce images of the retina that are sharper and crisper than ever before captured. Recent success of the camera has led to imaging cellular flow in foveal capillaries and individual photoreceptor cells in subjects. This has exciting applications for studying the human retina, and aiding the treatment and diagnosis of retinal pathologies. Members of the team include scientific programmer Ravi Jonnal, postdoctorate Junle Qu, research associate Karen Thorn, intern Monica Piñon, and three optometry students Theodore Hu, Melinda Kidwell, and John Randall. Both projects are supported by federal funding, including a NEI-STTR, NEI Biomedical Research Partnership, and NSF Science & Technology Center grants.

Current research in the Visual Optics Laboratory of Dr. Larry Thibos is using newly developed wavefront-sensing technology to learn about the eye’s optical imperfections, their importance, and their sources. They developed the world’s first wavefront aberrometer for clinical use here at IU Optometry (Optom. Vis. Sci 76:817, 1999) and used it in a large-scale study called the Indiana Aberration Study. Initial results from that study (JOSA-A 19:2329, 2002) characterized the individual variability in the optical aberrations of normal eyes. Now they are attempting to use that information to determine if people with eyes that have better optical quality see better and, if so, by how much? This is an important step in assessing the visual significance of aberrations in daily life and the potential value of aberration-correction treatments.

In addition to normal eyes, Dr. Thibos’ group is also investigating abnormal aberrations caused by disruption of the tear film. Graduate student Nikole Himebaugh, OD, has modified an aberrometer to simultaneously view the corneal tear film with retro-illumination and also with fluorescein. This has allowed her to quantify the optical consequences of drying of the tear film and to correlate these measurements with the gold standards of clinical practice. This work is supported by an NIH/NEI grant.

To investigate the source of ocular aberrations, Dr. Thibos’s graduate student Fan Zhou has used the core technology of wavefront sensing to develop a new way to measure the surface topography of the cornea. The result is a high-resolution corneal topographer that is capable of measuring the aberrations of the cornea as well as the whole eye. By subtracting one from the other, it is possible to infer the aberrations of the crystalline lens, determining their relative importance. This work is sponsored by a Small Business Technology Transfer grant from the NIH/NEI to Quarrymen Optical, Inc. of Bloomington.

Dr. Arthur Bradley has developed a research program to examine the impact of both optical and neural factors on human vision. In addition to basic scientific studies, he is actively engaged in clinical studies of vision problems and vision enhancement. During the last decade, much of the optics-based research has examined the impact of normal and pathological optics on retinal image quality and visual function. Recent work on monochromatic aberrations has investigated the impact of introducing and removing aber-

Larry Thibos

Colleen Riley

Dr. Colleen Riley is the principal investigator for the eight year NEI-funded multi-site Collaborative Longitudinal Evaluation of Keratoconus (CLEK), which is studying the progression of keratoconus, a disease of the cornea. Other investigations include examining the safety and efficacy of new contact lens materials for weekly and monthly extended wear. Dr. Riley is involved in dry eye research in patients who wear contact lenses and has just completed an FDA study for a contact lens manufacturer. This study evaluated dry eye signs and symptoms in dry eye patients wearing different contact lens materials. Additionally, she continues to be involved in contact lens and contact lens solution clinical trials in cooperation with the ophthalmic industry.
Faculty Accomplishments

PUBLICATIONS

Carolyn Begley

Joseph Bonanno

Arthur Bradley

Clifford Brooks

Rowan Candy

David Goss
Rainey BB, Goss DA. Binocular vision and pediatric optometry clinical faculty roles: a comparison. Optometry Education (in press).

Gary Hafner

Steven Hitzeman

Doug Horner

Don Lyon

Victor Malinovsky

Donald Miller
Miller DT, Jonnal RS, Qu J. "Method and Apparatus for

In 1988, Rich obtained his MS degree from the University of Michigan School of Public Health and is now involved in public health issues, always willing to help faculty and students with study design and statistical analysis.

For 20 years, Dr. Meetz directed an extensive grade school vision screening program and as a result, now works with the Indiana Optometric Association and the Indiana State Department of Health on school screening issues. The Indiana Optometric Association honored Rich with the Meritorious Service Award for service to the Legislative Task Force and the Distinguished Service Award for serving on its School Vision Committee (1988-1996) and also for writing the Indiana School Vision Screening Guidelines.

He has been active on National Board of Examiners in Optometry committees and in giving Part III exams throughout the United States. His students have twice received the John P. Davey Memorial Award for a paper of excellence from the Indiana Chapter of the American Academy of Optometry. He has received the Indiana University Teaching Excellence Recognition Award twice and this year received the Indiana University's Trustees Teaching Award.

Sarita Soni

S. P. Srinivas

Brad Sutton

Larry Thibos

Dr. Larry Thibos received an honorary Doctor of Science degree from the State University of New York College of Optometry in June 2003. This great honor rewards many years of outstanding contributions to the understanding of the optical properties of the eye and human vision.

Dr. Thibos' background is somewhat different than most optometry faculty. His BS and MS are in Electrical Engineering from the University of Michigan. He then received his PhD in Physiological Optics from University of California-Berkeley, where his original research was in the area of retinal electrophysiology. After receiving his PhD, he worked eight years at the John Curtin School of Medical Research at the Australian National University in Canberra, Australia before coming to Bloomington in 1983 to join the IU faculty.

Larry has been a prolific researcher in the areas of visual perception and optical properties of the eye. He has been on the cutting edge of research to correct the aberrations of the eye to improve vision beyond the usual 20/20 or 20/15. This work is important in the new technologies used in refractive surgery and possible improvements in the optics of contact lenses and spectacles. His research has been supported by the National Eye Institute, the University and industry. His research has resulted in an outstanding international reputation evidenced in his strong relationships with researchers around the world. He travels extensively presenting his work at optometry, ophthalmology, and vision science meetings both nationally and in Europe, Asia, Australia and Africa. He has over 80 refereed papers, 15 book chapters and has given over 160 presentations at meetings. He has trained a large number of graduate students, many who are making their mark in education and industry.

In addition to the honorary degree received in 2003, Dr. Thibos has previously received the Glenn Fry Award from the American Academy of Optometry, the "Best Paper Award" at both the first and second International Congress on Wavefront Sensing and Aberration-free Refractive Surgery, the Garland Clay Award from the American Academy of Optometry, and was selected to give the Distinguished Faculty Research Lecture at Indiana University in 1999.
Thibos LN. Are higher-order wavefront aberrations a moving target unworthy of clinical treatment? J Refractive Surg 18:744-745

Suresh Viswanathan

FACULTY PRESENTATIONS

Carolyn Begley
American Academy of Optometry. San Diego, CA (10/02)
Lui H, Begley CG, Srinivas SP, Wilson G. Spatial reocurrence of tear break-up.
Lehman M, Steward B, Lui H, Begley CG. Tear stability with artificial tear usage.
Association for Research and Vision in Ophthalmology. Ft. Lauderdale, FL (05/02)
Joseph Bonanno
UC Berkeley School of Optometry (02/2002)
Bicarbonate transport in corneal endothelium.
Contact Lenses for a new millennium: CLAO symposium. San Diego, CA (08/2002)
Etiology of corneal swelling variability.
Experimental Biology Conference, New Orleans, LA (04/02)
Sun X, Cui M, Bonanno J. Bicarbonate as an enhancer of soluble adenylyl cyclase activity and expression in bovine corneal endothelium.
Zhai C, Sun X, Xie Q, Bonanno J. Expression of GABA receptors in corneal endothelium.
Xie Q, Zhang Y, Zhai C, Bonanno J. Calcium influx factors from P450 metabolism predominate the mechanisms for capacitative calcium entry in corneal endothelial cells.
Zhang Y, Xie Q, Bonanno J. Enhancement of HCO3 flux across the apical membrane of bovine corneal endothelium by Ca2 signaling pathways.
Indiana University School of Optometry. Oxyopia Variability in hypoxia-induced corneal swelling is associated with variability in corneal metabolism and endothelial function.
Association for Research and Vision in Ophthalmology (05/02, Ft. Lauderdale, FL)
American Academy of Optometry. San Diego, CA (10/02)
Sun X, Cui M, Zhai C, Bonanno J. Apical Chloride permeability in corneal endothelium is increased by activating soluble adenylyl cyclase.

Arthur Bradley
Vision Science Society Annual Meeting
Bradley A, Barrett BT, Pacey IE, Thibos LN, Morrill P. Non-Veridical Pereception in Human Amblyopia: Perceptual evidence of neural changes in visual cortex.
Indiana University School of Optometry. Oxyopia Variability
The feasibility of wavefront correcting contact lenses.
IU School of Optometry, Continuing Education
The role of colored filters in optometry. The Fall Vision Meeting. San Francisco, CA (10/02)
Thibos LN, Bradley A, Applegate RA. What determines the far point in an aberrated eye.
American Academy of Optometry. San Diego, CA (10/02)
Association for Research and Vision in Ophthalmology. Ft. Lauderdale, FL (05/02)
Zhou F, Miller DT, Thibos LN, Bradley A. Validation of a combined corneal topographer and aberrometer based on

Clifford Brooks

Rowan Candy

David Goss

Jane Ann Grogg

Gary Hafner
Association for Research and Vision in Ophthalmology. Ft. Lauderdale, FL (05/02) Measurement of Outflow Facility In Bovine Eyes Mounted In Vitro With A Microinjector Based Pressure Clamp.

Patricia Henderson

Steve Hitzeman

Doug Horner
Elli Kollbaum  
*Ohio State University, Columbus, OH (04/2002)*  
Anterior Segment Anomalies  
*IU School of Optometry, Continuing Education*  
Anterior Segment Anomalies.  
*American Academy of Optometry, San Diego, CA (10/02)*  
Kollbaum E, Henderson P, Kovacich S. Paracentral scotoma in patient on hydroxychloroquine therapy for CNS vasculitis.

Susan Kovacich  
*IU School of Optometry, Continuing Education*  
Retina Grand Rounds.  
*American Academy of Optometry, San Diego, CA (10/02)*  
Kollbaum E, Henderson P, Kovacich S. Paracentral scotoma in patient on hydroxychloroquine therapy for CNS vasculitis.

Andrya Lowther  
*Learning Disabilities Association of America International Conference, Denver, CO (02/2002)*  

Don Lyon  
*Wabash Optometric Society. (Fall 2002)*  
Current Views of the Treatment of Amblyopia.  
*Lecture to Ophthalmology residents, fellows and faculty*  
Proper Refraction Techniques for Pediatric Patients.  
*IU School of Optometry, Continuing Education*  
Amblyopia Grand Rounds.  
*American Academy of Optometry, San Diego, CA (10/02)*  
Corneal Crystals Secondary to Cystinosis.

**Susan Boyd**  
travels the nation and parts of Canada recruiting the best and brightest students for the OD program! She’s been travelling for four of the six years of her optometry employment, and still enjoys it! In addition to recruitment travel, Susan also coordinates our recruitment efforts across the many IU campuses including the Bloomington campus. She has been very proactive in exposing Optometry to many junior high and high school aged students through IU programs such as the 21st Century Scholars, Groups, and Minority Achievers Programs. In addition to developing and implementing recruitment strategies, when in the office, Susan assists with the admissions processes and assisting current student as questions arise.

Susan's life has been filled with so much travel that she considers herself to be a global nomad. As a child she lived in Libya, North Africa; Colombia, South America; and Colorado, USA. Her leisure travels have included Belize, France, Germany, Spain, the Western Caribbean, and regular trips back to Colorado and California to visit family. She arrived in Bloomington from Riverside, California because her husband came here to attend the IU School of Law.

Susan has a BA from University of Colorado at Boulder, and a MS in Education from Univ. Southern California. Needless to say, she's still cheering on those football teams and enjoys the Colorado/Nebraska rivalry amongst the Nebraska OD students. In her previous career "life" she enjoyed advising and preparing undergraduate students for their own study abroad experiences.

To see if she’s coming to an area near you, go to the optometry web page at:  
http://www.opt.indiana.edu/admis/visits.htm

Have you seen Her?!

**Association for Research and Vision in Ophthalmology.** Ft. Lauderdale, FL (05/02)

Geiman M, Viswanathan S, Malinovsky V. Multifocal flash electroretinogram in primary open angle glaucoma.

**Edwin Marshall**

Minority Achievers Program LEADership Seminar Series, Indiana University, Bloomington, IN

Perspectives on Minority Health in Indiana.

Healthy Eyes, Healthy People: Building Momentum Through Coalition Building Conference, American Optometric Association, Denver, CO

Diabetes and the Indiana Rural Health Initiative.

Morning News, Midday News Live, WRHR-TV, Indianapolis, IN

Kids Get Focused Day, Morning News, WISH-TV Morning Show, WRTV-TV, Midday News Live, WTHR-TV, News Break, Indianapolis, IN, WTIU-TV, Bloomington, IN

Science of Sight Experience.

WIBC-AM, Indianapolis, IN

The Importance of a Routine Eye Exam.

**Indiana Minority Health Coalition, Indianapolis, IN**

Minority Imperatives in Public Health.

**Issues in Public Health Seminar, Indiana University School of Medicine, Indianapolis, IN**

Critical issues in Modern Public Health.

Eyecare 2002 Conference, St. Charles, IL (05/2002)


**Richard Meetz**

Indiana University School of Medicine, Bloomington, IN

M605 Introduction to Medicine; Special Demonstrations Module. Guest Speaker & Team Lecturer with Dr. Victor Malinovsky: "Ophthalmoscopy."

NMRA Annual Convention, Ft. Lauderdale, FL (07/2002)

Vision and the Aging Modeler.

**Donald Miller**

23rd Symposium of the Center for Visual Science: Engineering the Eye, Rochester, NY (06/2002)

Coherence gating and adaptive optics for the eye.

School of Optometry, University of CA-Berkeley (07/2002)

Application of 21st century optics to the human eye.

Alcon Laboratories, Ft. Worth, TX (10/2002)

Combined corneal topographer and aberrometer based on Shack-Hartmann wavefront sensing technology.

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**Jeff Johnson** may be one of the most frequently-encountered staff members at the IU School of Optometry. Daily, he moves from office to office resolving computer problems. Jeff is one of the most highly-respected computer support providers on campus. In fact, many people in the School would state categorically that he is the best support provider they have ever encountered. In addition to his broad technical knowledge (which his supervisor maintains is the best in the business) he can figure out practically any problem that is brought before him. This sort of resourcefulness is a rare commodity.

With responsibility for computer hardware and networking support, Jeff has been a member of the Optometry Technology Services since 1994. Jeff got his start back in 1981 when he got his first electronics-related job repairing cable television equipment. When microcomputers started to become popular he developed an interest in them, and the rest is history.

Jeff's success is due to more than just his superb technical skills. He is extraordinarily responsive to requests for assistance (which he receives on the average of 25 times per day), and he typically leaves a string of happy computer users in his wake at the end of the day. His attitude is: If people need it, he'll try to support it. On many occasions he has worked late into the night (and even all night) to deal with a computer emergency, and his dedication is legendary. In recognition of the outstanding service Jeff received a Staff Merit Award in December, 2002.

Characteristically modest, if pressed, Jeff cites a few achievements among many: the switch from Novell to Microsoft networking, the successful maintenance of a dual-platform (Mac and Windows) environment, wiring the School's two remote clinics for high speed access, the upgrade from Windows NT to Windows 2000, the increase in size of the optometry server by about 90-fold over the past seven years, and perhaps most importantly, the fact that the School of Optometry's computer resources have become a stable, essential part of its infrastructure.

Jeff's interests outside of work consist largely of hazardous activities including motorcycle riding, hang gliding, sailing and ultralight aircraft flying. He has a great interest in music, and has played bass guitar professionally since he was a "wannabe rock star" as a high school freshman in Jasonville, IN.

Here is a final comment from Jeff to faculty, staff, and students in the School of Optometry: BACK UP YOUR FILES!
Development of an Optical Coherence Tomographic Camera with Adaptive Optics for Imaging Single Cells in the Living Human Retina.

**2002 Optical Society of America Annual Meeting, Orlando, FL (10/2002)**

Coherence gated camera with adaptive optics for imaging the human retina.

**NSF Site Visit, Santa Cruz, CA (10/2002)**

Coherence gating and adaptive optics for the human eye.

**NSF Center's Fall Retreat, Lake Arrowhead, CA (11/2002)**

Adaptive optics for optical coherence tomography.

Walking and running with an AO coherence gated retina camera.

**Indiana University School of Optometry, Oxyopia**

**Sandi Pickel**

**Eyecare 2002 Conference, St. Charles, IL (05/2002)**


**Indiana Optometric Association Fall Seminar, Bloomington, IN (10/2002)**


**Indiana Optometric Association, Indianapolis, IN (04/2002) and Carmel, IN (11/2002)**


**Colleen Riley**

**RGP Lens Workshop, RGPI Institute. (11/2002.)**

Residencies at Indiana University School of Optometry, American Optometric Student Association. (01/2002).


**IU School of Optometry, Continuing Education**

Keratoconus 2002.

**American Academy of Optometry, San Diego, CA (10/02)**

Riley C, Pence N, McLean A, Hitzeman S. Patient Perceptions of 30-Day Continuous Wear Contact Lenses.

Riley C, Pence N, Edmondson W. Clinician Perceptions of 30-Day Continuous Wear Contact Lenses.

McLean A, Riley C. 30-Day Continuous Wear Silicone Hydrogels Versus Patients' Habitual Contact Lenses. Association for Research and Vision in Ophthalmology (05/02, Ft. Lauderdale, FL)


**Elaine Rivron**

**Eyecare 2002 Conference, St. Charles, IL (05/2002)**


**Indiana Optometric Association Fall Seminar, Bloomington, IN (10/2002)**


**Sarita Soni**

**University of Manchester Institute of Science and Technology (UMIST), Manchester, England (06/2002)**

Possible mechanistic changes due to overnight orthokeratology.

**Eyecare 2002 Conference, St. Charles, IL (05/2002)**

Paraoptometric Certificate Program - Level 1 - Contact Lens Procedures.

Paraoptometric Certificate Program - Level 2 - Contact Lens Procedures.

**Indiana Optometric Association Fall Seminar, Bloomington, IN (10/2002)**

Paraoptometric Certificate Program - Level 1 - Contact Lens Procedures.

**Indiana Optometric Association, Indianapolis, IN (04/2002) and Carmel, IN (11/2002).**

Paraoptometric Certificate Program - Level 1 - Contact Lens Procedures.

Paraoptometric Certificate Program - Level 2 - Contact Lens Procedures.

**IU School of Optometry, Continuing Education**

Orthokeratology update.

**American Academy of Optometry, International Meeting, Munich, Germany (04/2002)**

Soni PS, Nguyen TT. Corneal and refractive changes in orthokeratology.

**International Society of Contact Lens Specialists, Belfast, Northern Ireland (06/2002)**

Soni PS, Nguyen TT. Refractive and optics changes in orthokeratology.

**S. P. Srinivas**

**Biomedical Colloquia Medical Sciences, Indiana University, Bloomington, IN**


**Indiana Optometric Association Fall Seminar, Bloomington, IN (10/2002)**

Permeability of Topical Drugs across the Cornea.

**Conference on Oxygen in Wound Healing, Dorothy Heart and Lungs Institute, Ohio State University, Columbus, OH**

Srinivas SP, and Mutharasan R. Measurement of pO2 by Phase Fluorometry.

**Annual Meeting of the European Ophthalmology Association (Spain; 2002)**

Srinivas SP, Mitra R, Minati S. Unfolded Protein Response (UPR) in cultured bovine trabecular meshwork cells.

**Indiana University School of Optometry, Oxyopia**

Primary Open Angle Glaucoma - Yet Another Conformational Disease.

ATP Release, ATP Receptors and Purinergic Signaling in Trabecular Meshwork Cells.

**IU School of Optometry, Continuing Education**

Myoc and Myocilin in Primary Open Angle Glaucoma.

Pharmacological interventions in Diabetes.

**American Institute of Chemical Engineers, Annual Meeting, Indianapolis, IN (10/2002)**

Srinivas SP, Mutharasan R. Diffusion Coefficient of Oxygen in Soft Contact Lenses.

Srinivas SP, Mutharasan, Mutharasan R. Non-compartmental modeling of drug transport across the cornea. *American Academy of Optometry, San Diego, CA (10/02)*

Srinivas SP, Himebaugh B, Mutharasan R. Diffusion coefficient of Oxygen in Contact Lenses by Phase-Resolved Fluorometry.

Srinivas SP, Mutharasan K, Mutharasan R. Non-compartmental modeling of drug transport across the cornea. Lui H, Begley CG, Srinivas SP. What factors determine the location of tear break-up?

*Association for Research and Vision in Ophthalmology, Ft. Lauderdale, FL (05/02)*


Mitra R, Satpathy M, Srinivas SP. Tunicamycin Induced Unfolded Protein Response (UPR) in Cultured Bovine Trabecular Meshwork ™ Cells.

Srinivas Sp, Maertens S, Nilius B. Fluoxetine Inhibits Volume Regulated Anion Channels (VRAC) In Cultured Bovine Travecular Meshwork Cells (BTMC).


Allen KY, Satpathy M, Mitra R, Yue BY J T, Srinivas SP. Na+/H+ Exchange In Cultured Bovine Trabecular Meshwork ™ Cells: Response to Hyperosmotic Stress and Activation of PKC.


**Brad Sutton**

Created three separate on-line CE courses for various programs. IU School of Optometry - on-line CE page created a course entitled "Retinal Vascular Disease". SECO International on-line CE designed program titled "Don't Let Swollen Optic Nerves Make You Nervous". BCI VisionCareCE on-line CE site course was "The Swollen Optic Nerve".

*Indiana Optometric Association Fall Seminar, Bloomington, IN (10/2002)*

Overview of Injections in Eye Care. *American Academy of Optometry, San Diego, CA (10/02)*


Toxocariasis previously misdiagnosed as an optic nerve coloboma. (poster won first place in the inaugural SECO AOF poster judging competition)


**Larry Thibos**

*Third International Congress on Wavefront Sensing and Aberration-free Refractive Surgery, Interlaken, Switzerland (02/2002)*

Single number metrics for quantifying ocular aberrations. Representation of wavefront aberrations.

*International Society of Contact Lens Specialists, Belfast, Northern Ireland (06/2002)*

Use of a Shack-Hartmann aberrometer to evaluate the optical performance of rigid and soft contact lenses on the eye.

*UMIST, Manchester, UK (09/2002)*


*World Summit Symposium on Continuous Wear Contact Lenses for the New Millennium, San Diego, CA (08/2002)*

Design principles and limitations of wavefront-guided contact lenses.

*Refractive Surgery Online, Milan, Italy (09/2002)*

Variation in ocular aberrations over seconds, minutes, hours, days, months, years.

*The Ohio State University College of Optometry (10/2002)*

Towards a statistical model of the aberration structure of human eyes.

*The Fall Vision Meeting, San Francisco, CA (10/2002)*

Thibos LN, Bradley A, Applegate RA. Where is the far-point in aberrated eyes?


*Association for Research and Vision in Ophthalmology, Ft. Lauderdale, FL (05/02)*


*American Academy of Optometry, San Diego, CA (10/02)*

Martin J, Lippens J, Black J, Foster C, Horner D, Thibos LN. Comparison of Mexican and European refractive errors with power vectors. Thibos LN, Bradley A, Applegate RA. Where is the far-point in aberrated eyes?

Suresh Viswanathan
Association for Research and Vision in Ophthalmology. Ft. Lauderdale, FL (05/02)
Viswanathan S, Demirel S. Naso-temporal variations in the human multifocal electroretinogram.
American Academy of Optometry. San Diego, CA (10/02)
Watkins W, Viswanathan S. Effect of stimulus duration on the multifocal pattern electroretinogram (mPERG).
Ngan J, Viswanathan S. Effect of age on naso-temporal variations in the human multifocal electroretinogram (mERG).

IU National Optometric Student Association (NOSA)
The IU National Optometric Student Association had a busy year, culminating in being named the Chapter of the Year by the National Optometric Association (NOA) at the 34th Annual NOA Convention in Montego Bay, Jamaica in July 2002. Members Sabrina Reed (OD Class of 2005) and Dionne Moore (OD Class of 2004) and the chapter's advisor, Dr. Edwin Marshall (Professor and Associate Dean for Academic Affairs and Student Administration) represented the IU chapter at the conference. Dionne Moore was named as the Cave Memorial Award recipient, which recognizes a NOSA member who demonstrates community involvement while keeping a competitive GPA in their OD program.

During the orientation for the incoming optometry students in August 2002, NOSA provided information to the new students. A November can goods drive helped the needy for Thanksgiving. They also participated in the School of Optometry's Open House. In December engraved stainless steel travel mugs were sold as a fundraiser.

During February's Black History Month, NOSA developed and displayed a bulletin board on Black History in the student lounge. In addition, bags were collected for Back Street Mission-- trash bags, coffee bags, tea bags and zip lock bags. In March, "NOSA Week" included another fund drive to support Shelley Kaluf, O.D. (an IU grad) who practices optometry at a missionary clinic for the indigent in Haiti. The week was highlighted by a bake sale, Gloria Jennings, O.D. speaking about optometric practice, providing treats in the student lounge and a bowling outing. That was a busy week!

In July 2003, five students and Dr. Marshall attended the National Optometric Association meeting in Atlanta. Dionne Moore was installed as the National President of NOSA for 2003-2004. We are proud to have an IU student as the national president. Another IU student, Suzanne McCatty, was elected the Recording Secretary for the 2004-2005 school year.
**Student Accomplishments**

### Fourth Year Optometry Awards

**Alcon Scholarship ($1,000)** for scholastic aptitude in the clinic, outstanding patient care and contact lens knowledge – **Scott Miller** (New Castle, IN)

**Jack W. Bennett Humanitarian Award (plaque)** given by the Indiana Optometric Association to a fourth year student who exhibits outstanding scholarship, leadership, and service – **Jessica Black** (Floyd Knobs, IN)

**Beta Sigma Kappa Silver Medal Award** (engraved silver medal) for outstanding academic achievement – **Creston Myers** (Lewellen, NE)

**College of Vision Development Award for Excellence in Vision Therapy** (plaque) for demonstrating a strong interest and aptitude in the area of vision therapy – **Sasha Brown** (Jackson, KY)

**John P. Davey Memorial Award ($250)** for a paper of excellence on a clinical topic – **Laura Emond** (Pendleton, IN)

**Roy G. Denny Award ($250)** for a paper of excellence on a clinical topic – **Paul Bertram** (Durham, NC)

**Eschenbach Low Vision Award** (certificate and diagnostic kit) for interest and proficiency in low vision patient care – **Sean Knaak** (Topeka, KS)

**Essilor Optical Corneal Reflection Pupilometer Award** (pupilometer and plaque) for excellence in dispensing – **Ryan Petty** (Elnora, IN)

**William Feinbloom Low Vision Award** (low vision trial set valued at $2,500 given by Designs for Vision) for outstanding performance in the field of low vision – **Creston Myers** (Lewellen, NE)

**Gas Permeable Contact Lens Clinical Excellence Award** (RGP fitting set and plaque) to a top student demonstrating an interest in gas permeable lenses – **Paul Bertram** (Durham, NC)

**Dr. Henry W Hofstetter Scholarship ($500 and plaque)** given to a 4th year for leadership and service to their class – **Jessica Black** (Floyd Knobs, IN)

**IUOSA Past President’s Award (plaque)** in recognition of service to the students – **Todd Peabody** (Lafayette, IN)

**David J. Kerko Low Vision Award** (Corning's Professional Demonstration Lenses) for a graduating low vision student who has demonstrated interest and exceptional clinical proficiency in the area of low vision – **Austin Lifferth** (Bloomington, IN)

**David H. Kolack, O.D. Award ($1,250)** by the family of David H. Kolack, O.D., (69) to the top-ranked student in the graduating class – **Creston Myers** (Lewellen, NE)

**Marchon Eyewear Practice Management Award ($500)** for outstanding clinical and dispensing skills – **Luke Lindsell** (Cinebar, WA)

**Varilux Student Grant Award ($500)** recognizes an outstanding case report that incorporates Varilux lenses – **Jason Seim** (Beaver City, NE)

**Vistakon Award of Excellence ($1,000)** given by Vistakon and the American Optometric Foundation for excellence in clinical contact lens patient care and a commitment to serve the individual needs of patients – **Creston Myers** (Lewellen, NE)

**Wal-Mart Foundation Scholarship ($1,000)** given to a student who exhibits academic excellence – **Nicole Tradup** (Elgin, MN)

### Third Year Optometry Awards

**ACUVUE Eye Health Advisor Student Citizenship Award ($1,000 and plaque)** Awarded for excellence in patient care – **Mindy Pellersels** (Rockwell City, IA)

**AOA Student Leadership Award ($1,000)** Awarded to a student who has demonstrated leadership abilities through student government participation. Must also be a member of the AOA and be in good academic standing – **Dionne Moore** (Gary, IN)

**Cave Memorial Award by the National Optometric Association. ($500)** Awarded to a NOSA member who can demonstrate need, community involvement and academic excellence – **Dionne Moore** (Gary, IN)

**Chancellor’s Scholar 2003-2004 ($1,000 and book award)** Awarded to a student who has excelled academically by performing well or taking leadership roles in different courses, doing outstanding work on research projects,
and other activities – **Jaclyn Stodola** (White Bear Lake, MN)

Dr. Seymour Galina Grant by the American Optometric Association: A winning paper on the following topic: "The qualities I have developed through my financial planning/work experience during and/or before optometry school which I believe will be most useful to me establishing an ethical/professional optometric practice." – **Piper Groppel** (Beech Grove, IN)

Gas Permeable Contact Lens Clinical Excellence Award (RGP fitting set and plaque) to a top student demonstrating an interest in gas permeable lenses – **Seth J. Summers** (Salem, IN)

Jack W. Bennett Endowed Scholarship ($2000) Awarded to a student in good academic standing and demonstrates need – **Sara Ostrem** (Hastings, MN)

John Hitchcock Memorial Scholarship ($400) Awarded to a student who demonstrates excellence in teaching diagnostic skills – **Josh Hohenbary** (Kirksville, MO)

Kentucky Optometric Foundation Scholarship ($1,000) Awarded to KY resident student who holds a Kentucky contract seat and exhibits academic excellence and need – **M. Paige Anders** (Lexington, KY)

Rogers W. Reading Endowed Award ($400) Awarded to a student whose primary interest and/or area of study is binocular vision – **Sophocles Sophocleous** (Nicosia, Cyprus)

**Dr. and Mrs. Lewis Scott Scholarship** ($2,000) Awarded to student demonstrating potential leadership skills within the profession– **Matthew Will** (Haubstadt, IN)

Joseph Elmer Sidwell and Trula Sidwell Hardy Scholarship ($1,000) outstanding paper on professional ethics – **Brady Hanlon** (Marion, IN)

SOLAGuest Ophthalmic Optics Scholar Award ($500 and plaque) Student who best demonstrates knowledge and skill in ophthalmic optics – **Diana Fisher** (Indianapolis, IN)

Vision Service Plan Scholarship ($2,000 each) awarded to third year student demonstrating excellence in primary eye care services – **Megan Jackson** (New Castle, IN) and **Chad Kluver** (Carroll, IA)

Wal-Mart Foundation Scholarship ($1,000) given to a student who exhibits academic excellence – **Melissa Absey** (Aliquippa, PA)

**Second Year Optometry Awards**

Wal-Mart Foundation Scholarship ($1,000) given to a student who exhibits academic excellence – **Jennifer Kellems** (Leopold, IN)

**First Year Optometry Awards**

Indiana AFVA Scholarship ($1,000) awarded to the most outstanding first year optometry student who exhibits service to others – **Angela Todd** (Connersville, IN)

**IU Student Optometric Association Equipment Awards:**

Diversified Ophthalmics Indiana ($500) – **Darcy Duzan** (Oakland, IL)

GK Optical ($500) – **Misty Stevens** (Harold, KY)

Walman Optical ($500) – **Angela Tsai** (Terre Haute, IN)

**Optometric Technology Awards**

Technician of the Year awarded to the person who demonstrates overall excellence in all areas as an optometric technician – **Jami Barksdale** (Bloomington, IN)

Optician of the Year awarded to the person who demonstrates overall excellence in all areas as an optician – **Sarah Payne** (Columbus, IN)

Achievement Award -Awarded to the student who exhibits responsibility and proficiency in performing clinical skills – **Renee Bridgewater** (Springville, IN)

Professional Attitude and Patient Rapport Award -given to the person who exemplifies an outstanding professional attitude and ability to work with patients – **Jami Barksdale** (Bloomington, IN)

Contact Lens Award - awarded to the person who displays proficiency in clinical contact lens techniques and procedures – **Sarah Payne** (Columbus, IN)

Essilor Optical Corneal Reflection Pupilometer Award (Pupilometer and plaque) for excellence in dispensing skills – **Lynn Cunningham** (Beech Grove, IN)
The Office of Student Administration is constantly striving to improve services to support the prospective and current student services. One of the recent enhancements is the expansion of the Doctor of Optometry admission interview process.

Until the fall of 2002, those who interviewed for admission to the OD program came to the School for an 1½ hour process: a ½-hour interview with faculty, a file review with a Student Administration staff member, and an optional building tour with an available current student. Because the process was so brief, this model did not seem practical for applicants who traveled several hours (or more) to the interview. In addition, the School was missing the opportunity to “market” the many benefits of IU Optometry regardless whether the student was from Indiana or California.

Beginning in October 2002, a new format was launched. “Interview days” were established which allowed for up to six candidates and their guests to visit and interviews on a scheduled Monday or Friday. A group welcome session started the day to highlight the School, its clinics and the curriculum. After the individual interview components, interviewees and their guests received a building tour from a trained tour guide who is a current second or third year optometry student. A second group session reviewed and discussed the costs and financial aid options. The day concluded with a lunch in the Tudor Room of the IMU. This format gives the interviewing team an increased level of interaction with the applicant and also allows the interviewee to see the culture of IU Optometry while interacting with current students and faculty.

8:45 Check-In
9:00 Group session: Welcome*
9:30 Faculty interview
10:00 File review with Student Administration
10:30 Building Tour given by OP 2 or 3*
11:15 Group session: Costs and Financial Aid*
12:00 Lunch with an OP 2 or 3 at the Indiana Memorial Union* / Campus Tour

* all interviewees and guests included

In its fourth year, the School of Optometry Open House took place on Saturday, November 2, 2002, in the Optometry Building with the mission of educating visitors of the research, teaching, clinical services and degree programs that the School offers. The Open House welcomed a broad range of guests for the afternoon including alumni, IU faculty and staff, academic advisors/guidance counselors from outside IU, guests of current students, and prospective students. Activities included lab demonstrations, facility tours, and an information session addressing admission and financial aid for the degree programs.

Each fall, the School holds its Open House and invites the public to attend. Saturday, September 27, 2003, will be the 5th Annual Open House. See www.opt.indiana.edu for more information.

Students in the Class of 2005 were recognized on March 11, 2003, in a Nametag Ceremony marking their passing of the diagnostic skills competency exam and ability to progress into the clinic and perform patient care.

Dr. Rich Meetz, faculty of record for the Diagnostic Procedures III which includes the competency as part of the course requirements, coordinated the ceremony that included Dean Gerald Lowther and Dr. Steve Hitzeman as speakers.

Tiffany Struss, OPT 2005 receives her nametag from Dean Lowther.

During a February 2003 visit to Atlanta, Dean Lowther and Dr. Edwin Marshall met with students and advisors from Spelman, Morris Brown and Moorhouse Colleges, all historically black institutions. The pre-health professions students and advisors who attended received information about the great opportunities that exist in the optometric profession, particularly for those from underrepresented minority communities. Additional conversations have occurred following the February meeting to discuss establishing a “sister” school relationship.
Jaclyn Stodola was chosen as the School of Optometry’s 2003-2004 Chancellor’s Scholar. The award was presented by IUB Chancellor Sharon Brehm and Dean Lowther at a ceremony for all the IU Chancellor’s Scholars at the Chancellor’s home on the IU campus. This award is given each year to students in each of the IUB schools “who has excelled academically by performing well or taking leadership roles.” The scholars meet periodically throughout the year with the Chancellor in an advisory position. Jaclyn said that Chancellor Brehm told her that she finds the relationship with the students “intellectually stimulating.”

Jaclyn is from White Bear Lake, MN (a suburb of St. Paul, MN), the oldest of three children. Obviously, she is in optometry school, her brother just graduated from college, her sister attends the University of Minnesota, and her mother is a recent graduate of dental school, returning after an absence of fifteen years raising the family.

She attended the University of Minnesota as a biochemistry major, and came to IU optometry after her Junior year. She subsequently received her BS in Optometry from IU in 2002. She was steered towards optometry not only by a desire to work in a health profession, but also by Dr. Elizabeth Roberts (OD 1991), an optometrist in an office where Jaclyn worked for four summers. Jaclyn concurred with Dr. Roberts that Bloomington was a great place and IU was “the only place to go to optometry school.” After visiting IU, she thought that she could feel at home here for four years.

After graduating, Jaclyn wants to practice general optometry in the Midwest because “it suits me well.” She says that the most rewarding thing about it so far is 1) being able to interact with patients and 2) the process of talking through the problems so the patient understands and their visual problems corrected.

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**Student Administration Recruiting Events 2002-03**

**June**
- 27-29 University of North Carolina / Duke

**August**
- 10 21st Century Scholars Day

**September**
- 12 IUB Neal-Marshall BCC Open House
- 13 N. Kentucky University
- 9 Hanover College
- 18-20 Jackson State Univ., Millsaps College, Toogaloo College
- 20-24 NAMME recruiting fair, Maryland & D.C. Area Grad. Fair - George Washington University

**October**
- 2 IUB Pre-Optometry Club meeting
- 3 Earlham College
- 15-16 University of Nebraska - Lincoln
- 23 IUB Health Fields Fair
- 21-24 Tulane/Loyola Fair, Xavier, Dillard University
- 24 University of California - Irvine
- 24 IUB Optometry Career Day (co-sponsored by IU Career Counseling Services)
- 26 IUB Multicultural Open House
- 28 University of Illinois - Champaign Urbana
- 29 IUSB IUNW
- 30 Notre Dame University
- 31 University of Illinois-Chicago

**November**
- 2 IUB School of Optometry Open House
- 5-8 Vancouver, Canada: University of British Columbia, Simon Fraser University
- 9 AAMC Minority Student Recruitment Fair, San Francisco
- 20 Hanover College

**January 2003**
- 21-24 Brigham Young University, Utah/Idaho, Utah State, University of Utah, UVSC
- 28-30 UT Austin, Texas A&M, UT San Antonio

**February 2003**
- 4 Iowa State University
- 19-21 KYSU, Georgetown College, Asbury College, Transylvania College
- 19-23 SECO, Atlanta
- 25-27 Arizona Fairs: NAU, ASU, UA

**April 2003**
- 2 IUB Multicultural Career Fair
- 14-16 University of Colorado; Colorado State, University of Wyoming
The School of Optometry depends on donations from alumni, friends, and corporations to do those extra things that help propel the School to greater heights. Student fees, and the continual decrease of state appropriated dollars are not sufficient to operate a world-class program. Donations allow us to do those extra things that keep us at the high level.

**How can you help?**

1) **Cash gifts to the annual fund:**
Optometry alumni and other friends receive solicitations for help each year and we greatly appreciate the cash donations we receive annually from individuals and companies. This is an immediate help for such things as scholarships, building expansions and renovations, equipment and special projects. For example, some of these funds are used to operate our Guanajuato clinic in Mexico.

All gifts to the school are generally tax deductible. In the case of Indiana residents there is an increased tax incentive to give gifts of cash. For example, 50% of a married couples gift up to $400 ($200 for an individual), can be credited towards their Indiana state income tax resulting in an immediate savings of up to $200. In addition, if the maximum benefit were taken, the $400 would also be an income deduction on the federal tax form. Thus, for individuals in a 28% tax bracket there would be another savings of $112 on a $400 gift. Therefore, a gift of $400 to the school would cost a couple only about $88, creating a great benefit for IU Optometry at very little cost to the donor. *(Please consult with your tax specialist to see how this affects your specific tax situation).*

2) **Gifts-in-Kind:**
Gifts of equipment and supplies from individuals and companies are very helpful in the functioning of our clinics. Without the generosity of equipment gifts, no-charge loaned equipment, reduced pricing, two for one purchases and related programs we could not stay up to date with our sophisticated equipment and clinical program.

3) **Endowed Gifts:**
Another long-term commitment that many friends and alumni make is to our endowment funds. The IU Foundation invests all endowed funds and only a portion of the interest is used. Presently 5% of the interest on endowed funds can be spent with all excess earnings added to the principle of the fund to ensure its growth being faster than inflation. There can be endowed funds for many purposes including scholarships, awards, research, faculty development, professorships, chairs, and clinic development. There are many ways that individuals can contribute to endowed funds including cash gifts, gifts of tangible or appreciated property, or by placing the IU Foundation in estate plans or a will. Named scholarships, awards, professorships, etc., are a wonderful ways to honor a loved one in perpetuity.

4) **Planned Gifts:**
With retirement plans and other accumulated assets, many individuals overall estates are sufficiently large that heirs will end up paying very high taxes. Making a gift to the university through an estate plan can not only result in significant funds going to the university, but can also ensure nearly the same or potentially even greater benefits are left to a donor’s family, by reducing or eliminating much of the estate tax burden.

For example, while retirement plans such as an IRA or 401k are excellent vehicles to accumulate wealth, they are not effective for transferring it to heirs. If an individual passes on with a balance in one of these types of accounts, the IRS will levy a final income tax on the balance. It may also, depending on the size of the estate, levy an estate tax as well. This "double taxation" could reduce the balance by as much as 75%. The bequest of a retirement plan to Indiana University can eliminate excessive taxation of the remaining monies, and allows for the redirection of assets with lesser taxes to other beneficiaries, while contributing to the future well being of the school.
**Lifetime Giving Honor Roll**

**Visionary Circle ($250,000 and up)**
- Dr. Stanley Rafalko*
- Dr. Dennis Sawyer

**20/15 Circle ($100,000 to $249,999)**
- Dr. and Mrs. William Baldwin
- Dr. and Mrs. Irvin M. Borish
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- Dr. Polly Hendricks
- Dr. Denise Howard and Mr. James Bohrer
- Dr. and Mrs. James Leeds
- Dr. and Mrs. Gerald Lowther
- Ms. Lois Morgan*

**Focus Circle ($50,000 to $99,999)**
- Dr. Jack W. Bennett*
- Mrs. Alice Bennett
- Dr. Henry W Hofstetter*
- Dr. and Mrs. Andy Nemeth
- Dr. and Mrs. R. Lewis Scott
- Dr. Kevin Waltz and Mrs. Rhonda Fox Waltz
- E. F. Wildermuth Foundation

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- Class of 1959
- Class of 1969
- Dr. and Mrs. Joseph Begley
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- Drs. Donald and Joan Korb
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- Drs. Etta and Bernard Nevel
- Dr. and Mrs. Steven Peden
- Dr. and Mrs. James Seal
- Dr. and Mrs. Robert Robb
- Dr. and Mrs. James VanWinkle
- Vetowich Family Foundation
- Dr. Richard Windsor

*denotes deceased
Corporate donors listed in this report are some of our most important friends, and we're extremely grateful for their support. We could not stay up-to-date with the need for state-of-the-art equipment that is essential to the success of our many programs without the kindness of corporate donations including gifts of cash, gifts-in-kind, reduced pricing, two-for-one purchases, and loaner programs.

The School currently operates more than 75 exam and special testing lanes in all of its clinical locations. To fully equip each of these lanes would cost the School more than $1,500,000! This would not be possible without the special assistance of corporate donations and loans.

A corporate loan provides top quality equipment to the School at no cost. The equipment is then replaced periodically, ensuring students have access to the most cutting edge technology at all times.

There is a continual decrease of state appropriated dollars, and a constant increase of funding required to provide the comprehensive programs necessary to best educate students. There are simply not enough monies available to equip all of our clinics, funds are only available through the generosity of those companies that actively partner with the School of Optometry.

On behalf of all who benefit from the Indiana University School of Optometry, it is our privilege to thank the many corporations who have contributed to the success of the School this year.

Corporations with Major Equipment on Loan

Briot-Weco
R. H. Burton
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Heidelberg Engineering
Heine USA Ltd.
Interzeag/Haag Streit
Lombart Instrument
Luxottica Group
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Topcon Medical Systems, Inc.
Veatch Ophthalmic Instruments
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CIBA Vision Corporation

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Dr. Cynthia Overly
Dr. J. Jay Pass
Dr. Jacquelyn H. Patterson
Dr. Richard Patterson
Dr. and Mrs. Steven Peden
Dr. Jeffrey Perotti
Dr. Jeffrey Phillips
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Dr. Michael Zirkle
The annual IU Optometry alumni breakfast at the AOA Congress has been the most unusual function sponsored by any group during the convention. Drs. Mike Obremsky and Don Pitts started the "Foley House Basement Breakfast and Awards Banquet" in 1976, awarding a replica of the key to the basement door of the Foley House annually to a person deserving special recognition for their role in the School’s development. The Foley House was located at 744 East Third Street in Bloomington and served as the first IU Optometry Clinic prior to the construction of the present building. The old house was in poor shape, to say the least, and was condemned and finally demolished. The basement of the building was improvisationally adapted for use as a contact lens laboratory to serve the clinic upstairs and its rustic door stands in the School of Optometry Library to commemorate the recipients of the award.

In the second year of a new tradition, the 2003 Foley House "breakfast" was an evening desert reception, held in the San Diego Manchester Grand Hyatt. In spite of the event being held at the same time as the Optometry Student Olympics at the first ever joint AOA-AOSA conference, attendance at the Foley House reception hit an all time high. Nearly 90 people enjoyed pastries and other assorted dessert delicacies while enjoying a multi-media photo presentation of the history of the Foley House. This year’s Foley House Award winner was Dr. Stephen VanCleve. Like past recipients, Steve has given years of commitment and dedication to the IU School of Optometry, as well as to the overall profession.

The Spirit of Philanthropy Award

The Spirit of Philanthropy award is given each year to recognize outstanding individuals or companies for their special contributions to the School of Optometry at a luncheon sponsored by the schools reporting to the IUPUI campus. We are proud to have had multiple recipients of the 2003 Spirit of Philanthropy award.

Born in Bloomington, IN, and having attended Indiana University, Alice Bennett would naturally have a tie to IU. However, as the wife of the late Jack W. Bennett, a Bloomington optometrist, Dean of the Michigan College of Optometry, and Dean of the IU School of Optometry from 1988-98, Mrs. Bennett doesn’t merely have a past connection, but instead, a current and lifelong commitment to the University. Following her husband’s practice of “giving back to the profession what it gave to you,” she has made significant contributions to the School of Optometry and vision care both as a volunteer and a donor. She has also been very involved with the American Foundation for Vision Awareness, as state president in both Indiana and Michigan, as well as the national president in 1990-91.

Previous Foley House Awardees

2002 Dr. Doug Morrow  
2001 Dr. Jeff Marshall  
2000 Dr. Ed Marshall  
1999 Dr. Bob Moses  
1998 Dr. George Rector  
1997 Dr. Jerald Strickland  
1996 Dr. Dawn Kaufman  
1995 Dr. Steve Hitzeman  
1994 Lois Selk  
1993 Dr. Dan Gerstman  
1992 Dr. Donald Robins  
1991 Dr. Felix Barker  
1990 Dr. Dennis Escol
Henry Hofstetter Endowed Professorship

Dr. Henry W Hofstetter, the first Director of the Indiana University Optometry program, had a long and very distinguished career in optometric education, research and service. His wisdom and dedication helped to establish the IU School of Optometry as one of the preeminent programs in the nation, and his achievements include serving as President of the Association of Schools and Colleges of Optometry, the American Optometric Association, and the Optometric Historical Society. He received five honorary doctorates, the Prentice Medal, the Apollo Award, the AOA Distinguished Service Award, the Indiana Optometric Lifetime Achievement Award, and the Orion Award (the highest award of the Armed Forces Optometric Society). He was appointed to the distinguished rank of Rudy Professor of Optometry at IU in 1974 and in 1999, Dr. Hofstetter was presented with the first ever Distinguished Service Award from the World Council of Optometry at a symposium held in Bloomington in his honor.

In 1996, a campaign was initiated to create the Henry W Hofstetter Endowed Professorship to honor his dedication and commitment to the IU School of Optometry. Named professorships are among the most important resources that a university has in attracting and retaining distinguished faculty. An endowment for a named professorship enables a talented faculty member to pursue innovative projects in teaching and research. At the same time, it recognizes the contributions of the individual the professorship is named after.

A professorship requires a $500,000 endowment to be established. To date, $100,000 has been donated. To coincide with the 50th anniversary of the School of Optometry, we would like to be able to fully fund the professorship. The intent of this aggressive campaign is to have reached our goal, in its entirety, by the end of this celebratory year.

Dr. Kevin L. Waltz, O.D., M.D., a 1981 graduate of IU Optometry, and his wife, Rhonda Fox Waltz, also an IU grad (B.A. English, '77), have graciously volunteered to lead this campaign. Furthermore, they have very graciously contributed a "lead gift" of $10,000 outright, with an additional $10,000 in matching funds, to the revitalization of the campaign. The Waltz's currently reside in Indianapolis with their two children, Zachary and Zoë, where they recently celebrated their 25th anniversary. In their own words, "After spending many years struggling to achieve our goals, it's great to be able to give something back".

We truly hope that you, too, will strongly consider "giving something back" by contributing to this important and meaningful project.
With the continued economic difficulties and the state budget shortfall, the support to the university continues to be a problem. The costs of operating the university (support services, utilities, etc.) continue to increase, resulting in greater assessments to the School of Optometry. To deal with the situation we have taken steps to maximize our efficiency, instituted some cost savings and increased our income from sources other than state support. One of the areas we depend on is the support of alumni and friends through gifts to the School of Optometry and the IU Foundation (see the section on donors for details). Numerous corporations help us by donating, loaning, or providing discounted equipment and supplies. We deeply appreciate the help.

A consequence of decreased state support and increased assessments is that we have to raise tuition to just keep even. This coming year we raised resident tuition 9.5% to $11,749 (IU is 13th highest of the 17 optometry schools for resident tuition) and 3.5% to $26,361 for non-residents (2nd highest of the 17 schools). Below is a graph of the change in income, university assessments and student fee income over the years.

Below are last year’s budget and the projected General Fund Budget for 03/04. These do not include foundation income, grant income or equipment gifts.
In 1980 the School of Optometry began phase two of the Optometric Technology Program, the introduction of the new optician program. In anticipation of the need for an optician training facility, the School had previously established a functional optical laboratory. Today, our state-of-the-art laboratory continues to educate optician and optometry students while simultaneously providing prescription eyewear to all of our Optometry Clinics.

As new technology and equipment has been introduced into the lab, the process of fabricating prescription eyewear by our optical laboratory has changed; thus, our staff has continually changed the way they do business. The people who staff the optical lab, although small in number, are big in knowledge, skill and flexibility. As a result, changes made in order processing have seamlessly been put into place.

Before a prescription ever leaves one of the School's eyewear centers, the optical lab staff is already hard at work. Ginger Long is responsible for managing and trouble-shooting the software system that transfers ophthalmic lens data via the internet from clinic to lab. This data includes frame information (style/shape/size/color) and lens information (type/availability/prescription). When needed, Ginger also provides a helping hand in the lab. Her other responsibilities include didactic teaching in our Technology Program. Ginger is a 1994 graduate of our optician program. Before joining our staff in 1999, Ginger worked in dispensaries and optical laboratories in Bloomington.

Once the prescription arrives in the lab, the person in charge of routing the ophthalmic order to the appropriate area is Lori Adams. She handles the teaching and processing of polycarbonate lenses. Lori also tracks orders, oversees the hard coating process, and requisitions both finished and semi-finished stock lenses from various manufacturers. Lori is a 1988 optician graduate of our program. Before returning to our Optometry School in 1991, Lori worked in optical labs located in Evansville and Jasper.

When an ophthalmic prescription enters the plastic/hi-index lens area, Sharon Hamontre determines what semi-finished blanks are needed and how each should be processed (blocking, generating, fining and polishing). She is responsible for ordering ophthalmic supplies. When needed in either the finishing area or order processing area, Sharon gladly fills in. Sharon is a 1982 graduate of our Technician Program and a 1983 graduate of our Optician Program. She worked in Cincinnati, Ohio, before being recruited back to IU in late 1983.

Once the lenses have been surfaced or drawn from stock, they move into the lens finishing area, where Glenn Herringshaw over-sees the finishing process (spotting/blocking/edging/pin-beveling/tinting/inserting). Glenn is a graduate of The Ohio State University and has served as the Optical Laboratory Manager for the past 11 years. Prior to arriving at IU, Glenn managed two different wholesale labs during his 33 years in the optical industry.

After all of these processes have been completed, all orders are verified for optical accuracy and cosmetic appearance; then they are shipped to the appropriate clinic for dispensing.

Without maintaining skills in every area and being willing to step in wherever needed, it would not be possible to accomplish both the teaching and service missions of the lab; the staff works together as a team. All are highly skilled and have the theoretical knowledge and practical understanding to appropriately train optician students while delivering quality eyewear to our clinics in a rapid turn-around time.
Continuing Education

Saturday, July 12, 2003
Pediatric Day

Sunday, July 13, 2003
Anterior Segment and Visual Science Day

Monday, July 14, 2003
Contact Lens Day

Saturday, July 26, 2003
Retinal Day

Sunday, July 27, 2003
Anterior Segment Surgery and Therapeutics

Saturday, August 9, 2003
Therapeutic Day

Sunday, August 10, 2003
Pharmacology Day

Saturday, December 27, 2003
Indy Therapeutics Day

Sunday, December 28, 2003
Indy Potpourri Day

Saturday, March 27, 2004
Therapeutic Update

Sunday, March 28, 2004
Optometry Potpourri

CONTINUING EDUCATION SPEAKERS

IU Optometry Faculty

Dr. Arthur Bradley
Dr. David Goss
Dr. Patty Henderson
Dr. Steve Hitzeman
Dr. Elli Kollbaum
Dr. Pete Kollbaum
Dr. Susan Kovacich
Dr. Don Lyon
Dr. Vic Malinovsky
Dr. Richard Meetz
Dr. Neil Pence
Dr. Bill Rainey
Dr. Colleen Riley
Dr. Sarita Soni
Dr. S. P. Srinivas
Dr. Brad Sutton

Outside Speakers

Dr. Lou Cantor
Dr. Ron Danis
Dr. Jim Hunter
Dr. Robert Johnston
Dr. Paul Karpecki
Dr. Glenn Kirk
Dr. Missy Melot
Dr. Dan Neely
Dr. Amy Peak
Dr. David Plager
Dr. Kevin Waltz
Dr. Robert Yee

ONLINE CE COURSES
www.opt.indiana.edu/ce

Retinal Vascular Disease

(COPE approved, OLDPAC approval pending)
Author: Brad M. Sutton, O.D., FAAO
CE credit: 2 hours
Cost: $50

VISION STATEMENT

"The Indiana University School of Optometry will be at the leading edge of vision care for the people of the world."

MISSION STATEMENT

The mission of the School of Optometry is to protect, advance and promote the vision, eye care and health of people worldwide by

- preparing individuals for careers in optometry, the ophthalmic industry and vision science and
- advancing knowledge through teaching, research and service.

This will be accomplished through the Doctor of Optometry, Optician/Technician, residency and graduate programs.
**Administrative Services**

800 East Atwater Avenue  
Bloomington, IN  47405

Administrative FAX ............................................. 855-8664  
Gerald E. Lowther, Dean ....................................... 855-4440  
Daniel R. Gerstman, Exec. Assoc. Dean for  
Budgetary Planning and Admin ............................ 855-7203

Associate Deans  
Edwin C. Marshall, Academic Affairs and  
Student Administration ................................ 855-4475  
P. Sarita Soni, Research ...................................... 855-4475  
Graeme Wilson, Graduate Programs .................. 855-7595

Directors  
Julia Broadstreet, Human Resources .................... 855-1290  
Clifford Brooks, Optician / Technician Program .... 855-1298  
Douglas Freeman, Technology ......................... 855-8629  
Gretchen Handlos, Student Administration .......... 855-1917  
Steven Hitzeman, Clinics .................................. 855-4979

**Support Services**

800 East Atwater Avenue  
Bloomington, IN  47405

Carpenter and Machine Shop .................. 855-5201  
Computer and Electronics ...................... 855-4786  
Financial Aid Advisor ................................. 855-4478  
Optical Laboratory ....................................... 855-5305  
Optometry Library ....................................... 855-8629  
Patients Accounts Billing Unit ............... 855-4870  
Placement Services ................................. 855-1917  
Receptionist-Dean’s Office .................... 855-4447  
Student Administration ............................ 855-1917  
Supply Room ........................................ 855-0422

Website ........................................http://www.opt.indiana.edu

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financial support of this Annual Report.